REMARKS

Claims 1-30 remain in the application. Claims 1, 2, 4, 5, 9, 10-12, 16, 22, 23, and 26 have been amended. Reconsideration of the pending claims is respectfully requested.

CLAIM REJECTIONS UNDER 35 USC §112

The Office Action rejected claims 5, 13, 22, and 26 under 35 USC 112, first paragraph, for failing to comply with the written description requirement. In response to the non-final Office Action the Applicant pointed out that claims 1-30 were part of the originally filed specification and that it is beyond reasonable dispute that Applicant had possession of the invention of claims 1-30. However, the Examiner considered claims 5, 22, and 26 as lacking written description because of a perceived inconsistency between the claims and the detailed description. Thus, the limitation of claims 5, 22, and 26: "...incrementing the activation count by the number of frames" was considered inconsistent with "... activating the activation counter for each frame in the stack." Applicant considers that the above language represents two different ways of saying the same thing. However, to advance prosecution, the claims have been amended to use the language in the specification.

The Examiner also perceives an inconsistency between claim 13 and the detailed description. Specifically, the Examiner considers that according to paragraph [0017]   the activation count is the number of times that an interval has expired and claim 13 includes the

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limitation of using a single bit which the Examiner perceives as inconsistent with paragraph [0017]. There is actually no inconsistency. Paragraph [0017] does not say that the activation count is the number of times that an interval has expired. Rather, it says that the activation count is incremented for each frame. What happens when the interval expires is that the content of each thread stack is examined to determine its content and the counter is incremented for each frame, not for every interval. If an interval has expired and the content is zero then the counter is not incremented. While it is true that a one bit counter can only be incremented up to one, that is enough to reach the required non-zero value associated with a phase.

Claims 1-30 were rejected under 35 USC 112, first paragraph. The specific reason for this rejection appears to be that the specification allegedly provides no description of the term "an activation." The term is actually well known in the computer art. See Aho, Sethi, and Ullman, *Compilers: Principles, Techniques, and Tools*, Addison-Wesley (1986), p. 389: "Each execution of a procedure is referred to as an *activation* of the procedure."

The Office Action rejected claims 9, 10, 11, 12, and 30 under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. In the response to the non-final Office Action Applicant submitted that each of the claims 9, 10, 11, and 12 requires the performance of a known function or step after the method of claim 1. "A patent need not discuss what is well known in the art. *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir. 1988); *Spectra-Physics, Inc. v. Coherent*, 827 F.2d 1524, 3 USPQ2d 1737 (Fed. Cir. 1987) cert. denied 484 U.S. 954 (1987). The requirement for enabling software can be satisfied by describing the functions of the software without including flow charts or source code. *Fonar Corp. v. General*

Electric Co., 107 F.3d 1543 (Fed. Cir. 1997). The patents cited by Applicants were for the purpose of showing that the additional steps or functions performed were known by those skilled in the art and that, given Applicant's disclosure, those skilled in the art would be able to make and use computer hardware and software that perform the steps or functions. Applicant's specification includes two flow charts and a block diagram of a computer machine and discussion of these figures and a detailed description of an embodiment beginning at paragraph 24.

      With respect to claims 9 and 30, Applicants do not contend or admit that the prior art discloses the precise limitation of that claim. What Applicants do submit is that the function of switching threads is well known and those skilled in the computer art, given the detailed description, would know how to perform the step of scheduling thread switches. The patent cited was merely meant to show that scheduling thread switches is a known operation to those skilled in the art. Claim 30 is an article of manufacture counterpart to method claim 9. Each of them recites a step that is self-explanatory and supported by the disclosure.

      With respect to claim 10, scheduling checkpoint operations was another technique that was known as of the time of filing. The Computer Desktop Encyclopedia defines checkpointing as:

"A method of recovering from a system failure. A checkpoint is a copy of the computer's memory that is periodically saved on disk along with the current register settings (last instruction executed, etc.). In the event of any failure, the last checkpoint serves as a recovery point.

When the problem has been fixed, the restart program copies the last checkpoint into memory, resets all the hardware registers and starts the computer from that point. Any transactions in memory after the last checkpoint was taken until the failure occurred will be lost."

The Computer Desktop Encyclopedia, 9th Edition, McGraw-Hill (2001). Therefore, checkpoints are known. Given the discussion at paragraph [0018] of Applicant's specification those skilled in the art would be able to perform a step of scheduling of checkpoints. With respect to claim 11, the step of "presenting visualization" was known as of the time of filing of the present application. The Computer Desktop Encyclopedia defines visualization as:

"Using the computer to convert data into picture form. The most basic visualization is that of turning transaction data and summary information into charts and graphs. Visualization is used in computer-aided design (CAD) to render screen images into 3D models that can be viewed from all angles and which can also be animated."

The Computer Desktop Encyclopedia, 9th Edition, McGraw-Hill (2001). Applicant's detailed description enables determining phase behavior. Given the Applicant's detailed description, one skilled in the art would know how to enable the claimed step.

With respect to claim 11, the additional step is presenting a visualization of program phase behavior.

With respect to claim 12, the additional step is resetting profile data.

The Office Action rejected claims 1-22 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The reason for those rejections is that the claims recite the limitation of detecting phases but allegedly no limitation for detecting the phases. The claims were amended to recite instead a method for associating a phase with an activation in claim 1 and claim 16 now is for a system for associating a phase with an activation. Both claims 1 and 16 (and their dependent claims) have limitations for accomplishing this in the body of the claims.

CLAIM REJECTIONS UNDER 35 USC §102

The Office Action rejected claims 1-4, 6-8, 12, 14-21, 23-25, and 27-29 under 35

USC 102(e) as being anticipated by Houldsworth (USPN 6,557,091). For a reference to

anticipate a claim, each element and limitation of the claim must be found in the reference.

Hoover Group, Inc. v. Custom Metalcraft, Inc., 66 F.3d 299, 302 (Fed. Cir. 1995). Houldsworth

does not disclose every element of claim 1. The Office Action contends that Houldsworth

discloses "allocating space in memory for an activation count for each frame." In doing so

apparently the Office Action regards the HT/COUNT as the activation count. However, an

examination of the Houldsworth patent reveals that the HT/COUNT is not the same as the

claimed activation count. According to Houldsworth "A handle table HT is provided for

carrying pointers identifying data object locations." Col. 4, lines 37-40. While the handle table

contains a reference count, that is, a count of reference objects, not activations. An activation

count represents the number of activations. An activation is a well known term that was defined

in a textbook discussed above. There is no indication or hint in Houldsworth that the handle
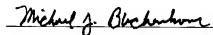
table HT keeps a count of activations.

Moreover, to clarify claims 1, 16, and 22 they have been amended to recite the steps

of whether an interval has transpired during program execution and the consequences.

Therefore, Houldsworth does not disclose any of the steps of claims 1, 16, and 22.

Claims 2-15 are dependent on claim 1 and are not anticipated by Houldsworth for the

foregoing reasons. Claim 16 is a machine counterpart to claim 1 and its dependent claims are not

anticipated by Houldsworth for the foregoing reasons. Claim 23 is a manufacture counterpart to claim 1 and its dependent claims are not anticipated by Houldsworth for the foregoing reasons.

For the foregoing reasons, Applicant respectfully requests allowance of the pending claims.

Respectfully submitted,

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